

### REMARKS

Applicant adds new claims 22; therefore, claims 1-7, 9 and 12-22 are all the claims now pending in the application.

Applicant amends claim 1 to correct a minor typographical error (noted by the Examiner) and punctuation. Clearly, these amendments do not change the scope of claim 1. No estoppel is created. Applicant respectfully requests the Examiner to withdraw the objection to claim 1 accordingly.

The Examiner rejects claims 1-7, 9 and 12-21 under 35 U.S.C. § 103(a) as being unpatentable over Sung in view of Applicant's admitted prior art (AAPA). Applicant respectfully traverses this rejection as follows.

As explained in Applicant's Amendment filed October 28, 2002, one of the features of Applicant's claimed invention is forming a capacitor dielectric film on HSG after removing at least a portion of HSG and polysilicon film from an upper surface of the interlayer film (see Applicant's independent claims 1 and 16).

In contradistinction to Applicant's claimed invention, Sung discloses a process where dielectric film 38 is formed before removing polysilicon film 37. That is, Sung explicitly teaches a process where capacitor dielectric layer 38 is created on the surface of polysilicon layer 37, and "[a] CMP procedure is next performed, resulting in polysilicon, storage node layer 37, and capacitor dielectric layer 38, residing only in storage node openings 36" (*See Id.*, col. 7, line 45 through col. 8, line 8, *emphasis added*; and Fig. 18). Applicant respectfully submits that one of ordinary skill in the art of semiconductor device manufacture would readily appreciate that performing a CMP procedure "next", in the context of Sung's disclosure considered as a whole,

means performing the CMP procedure “after” the capacitor dielectric layer 38 has already been created (*see Id.*, col. 7, line 54-55). Thus, Sung teaches away from Applicant’s claimed invention, and AAPA does not supply at least the above-noted deficiency of Sung.

Accordingly, Applicant’s independent claims 1 and 16, as well as their respective dependent claims 2-7, 9, 12-15 and 17-21 (which incorporate all the novel and unobvious features of their respective base claims), would not have been obvious from any reasonable combination of Sung and AAPA.

Finally, Applicant adds new dependent claim 22 which recites additional, separately patentable features of the invention as disclosed in the specification. That is, claim 22 explicitly recites the features of an upper electrode formed on a first capacitor dielectric film formed on an upper surface of an interlayer film. In contrast to Applicant’s claim 22, Sung’s upper electrode 39 cannot be formed on a capacitor dielectric film formed on an upper surface of an interlayer film 34, because there is no capacitor dielectric film remaining on the upper surface of the interlayer film 34. *See Sung* at col. 8, lines 4-7 (“A CMP procedure is next performed, resulting in polysilicon, storage node layer 37, and capacitor dielectric laver 38, residing only in storage node openings 36,” *emphasis added*).

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111  
U.S. Appln No. 09/817,233

Atty Dkt No. Q62494

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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